

(begin

REEL #142  
GALUSHKINA, N.A.  
to

1. GALUSHKINA, N. A., TOKAREVA, M. F.
2. SSSR (600)
4. Uzbekistan-Oil Industries
7. Production capacity potentials of the Uzbekistan oil factories.  
Masl. zhir. prom. 17 No. 5, 1952
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

GALUSHKINA, N.A., kandidat ekonomicheskikh nauk.

Some problems of labor productivity in the oil industry of the  
Uzbek S.S.R. Masl.-shir. prom. 22 no.7:4-8 '56. (MLRA 9:12)

1. Vsesnousnyy nauchno-issledovatel'skiy institut zhirov.  
(Uzbekistan--Oil Industries)

GALUSHKINA, N.A., kandidat ekonomicheskikh nauk; SAZONOVА, I.D.

Improvement of the system of production standards and wages in the oils  
and fats industry. Masl.-zhir. prom. 23 no.3:1-3 '57. (MLR 10:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.  
(Oil industries--Production standards) (Wages)

G. A. Galushkina IN

GALUSHKINA, N.A., kandidat ekonomicheskikh nauk.

Brief history of the oil, fat and perfume industries of Leningrad.  
Masl.-zhur.prom. 23 no.6:9-12 '57. (MLRA 10:?)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.  
(Leningrad--Oil industries--History)

RZHEKHIN, V.P., starshiy nauchnyy sotrudnik; BODYAZHINA, Z.I.; VENGEROVA, N.V.; VISHNEPOL'SKAYA, F.A.; GALUSKINA, N.A.; GAVRILEJKO, I.V.; GRAUERMAN, L.A.; IRODOV, M.V.; KARANTSEVICH, L.G.; KREYSINA, R.A.; KUPCHINSKIY, P.D.; LEVIT, M.S.; LKONT'YEVSKIY, K.Ye.; LITVINENKO, V.P.; LYUBCHANSKAYA, Z.I.; MAZYUKOVICH, V.A.; MAKOVSKAYA, N.K.; NEVOLIN, F.V.; POGONKINA, N.I.; POPOV, K.S.; PREMET, G.K.; SARKISOVA, V.G.; SEMENOV, Ye.A.; STERLIN, B.Ya.; SERGEYEV, A.G., kand.tekhn.nauk, obshchiy red.; PRITYKINA, L.A., red.; TARASOVA, N.M., tekhn.red.

[Technical and chemical production control and accounting in the oils and fats industry] Tekhnokhimicheskii kontrol' i uchet proizvodstva v maslodobyyvaiushchsei i zhiropereerabatyvaiushchsei promyshlennosti. Moskva, Pishchepromizdat. Vol.1. 1958. 403 p.  
(Oil industries) (MIRA 13:1)

GALUSHKINA, N.A., land.ekon.nauk; GAIITSKHOKI, N.I.

Some problems of the management of mills of the oil and fat industry. Masl.-zhir.prom. 24 no.5:1-4 '58. (MIRA 12:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.  
(Oil industries)

GALUSHKINA, N.A., kand. ekon. nauk

Economic section of the seminar. Masl.-zhir. prom. 25 no. 7:13-14  
'59.

(MIRA 12:12)

(Oil industries)

GALUSHKINA, N.A., kand.ekon.nauk; PULOVA, M.S.

Using economic production stimuli. Masl.-zhir.prom. 25 no.8:  
1-3 '59. (MIRA 12:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.  
(Oil industries)

GALUSHKINA, N.A., kand.ekon.nauk

Means of increasing labor productivity in the oils and fats  
industry. Masl.-shir.prom. 25 no.10:1-5 '59.

(MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.  
(Oil industries)

GALUSHKINA, N.A., kand. ekonom. nauk; SPASSKAYA, V.V., red.; SEMENOVA, O.G., tekhn. red.

[Methods for determining the economic effectiveness of the mechanization and automation of production in the oils and fats industry] Metodika opredeleniya ekonomicheskoi effektivnosti me-khanizatsii i avtomatizatsii proizvodstva v maslozhirovoi pro-myshlennosti. Leningrad, Vses. nauchno-issl. in-t zhirov, 1960. 26 p.  
(MIRA 15:6)  
(Oil industries)

GALUSHKINA, Nina Andreyevna; SAZONOVA, Irina Danilovna; POGOSTIN, S.Z.,  
retsenzent; KHINKIS, L.A., retsenzent; FUKS, V.K., rad.; SOKOLOVA,  
I.A., tekhn.red.

[Specifications for work standards in the oils and fats industry]  
Tekhnicheskoe normirovanie truda v maslozhirovoi promyshlennosti.  
Moskva, Pishchepromizdat, 1960. 138 p. (MIRA 13:5)  
(Oil industries)

GALUSHKINA, N.A., kand.ekon.nauk; GAYTSKHOKI, N.I.; PULOVA, M.S.

Lowering the costs and increasing the revenues of the industry.  
Masl.-zhir.prom. 26 no.9:7-10 S '60. (MIRA 13:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.  
(Oil industries)

GALUSHKINA, Nina Andreyevna

[Economics of enterprises of the vegetable-oil industry]  
Ekonomika predpriistii maslozhirovoi promyshlennosti. Mo-  
skva, Pishchepromizdat, 1961. 268 p. (MIRA 15:3)  
(Oil industries)

GALUSHKINA, N. A., kind.ekonomiceskikh nauk

Oil and fat industry before the 22d Congress of the CPSU. Masl...  
zhir. prom. 27 no.10:2-4 O '61. (MIRA 14:11)  
(Oil industries)

GALUSHKINA, N.A., kand.ekon.nauk; SAZONOVA, I.D.

Some results of the transition to the shortened workday in the  
oils and fats industry. Masl.-zhir. prom. 27 no.11:11-14 N '61.  
(MIRA 15:1)

(Hours of labor)  
(Oil industries)

GALUSHKINA, N.A., kand.eksp. n. sk

Assortment of the oils and fats industry products. Masl.-zhir.prom.  
29 no.9:4-6 S '63. (MIRA 16:10)

GALUSHKINA, R.A.; BERGMAN, A.G.

Polythermal diagram of the system  $K_2SO_4-KNO_3-H_2O$ . Zhur.neorg.khim.  
7 no.9:2251-2253 S '62. (MIRA 15:9)  
(Potassium sulfate) (Potassium nitrate)  
(Thermal analysis)

GAIUSHKINA, R.A.; BERGMAN, A.G.

Polytherm of the ternary system  $H_2O - K_2SO_4 - NH_4NO_3$  .  
Zhur. neorg. khim. 8 no.11:2573-2576 N '63.  
(MIRA 17:1)

L 0181/66 ETT(m)/EPF(n)-2/EPR(t) LNU(c) JNU  
ACC NR: AP6012459 SOURCE CODE: UR/0181/66/008/004/1040/1048

AUTHOR: Galushka, A. P.; Yermolovich, I. B.; Korsunskaya, N. Ye.; Konozenko, I. D.; Sheynkman, M. K.

ORG: Institute of Physics, AN UkrSSR (Institut fiziki AN UkrSSR); <sup>4/1</sup> Institute of Semiconductors, AN UkrSSR, Kiev (Institut poluprovodnikov  
AN UkrSSR) <sup>(B)</sup>

TITLE: Effect of gamma-ray and fast-neutron irradiation on electro-  
physical properties of CdS single crystals <sup>19</sup> <sub>17 27</sub>

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1040-1048

TOPIC TAGS: irradiation, gamma irradiation, neutron irradiation,  
irradiation effect, irradiation damage

ABSTRACT: An investigation was made of the effect of nuclear radiation on some properties of CdS single crystals grown by the zone sublimation method and not subjected to alloying. To measure Hall effect, specimens shaped as a parallelepiped (15 x 4 x 1 mm) were used; for other investigations, specimens 4 x 3 x 1 mm were used. The neutron irradiation was carried out in a VVR-M-type reactor at a temperature below 70C. The gamma-ray irradiation was carried out in a cobalt installation at a temperature below 20C. To determine the character of the

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L 23300-56

ACC NR: AP6012459

defects appearing in CdS single crystals due to neutron and gamma-ray irradiation, the following crystal characteristics were investigated before and after irradiation: dark resistance, photosensitivity to white light, spectral distribution of photoconductivity, spectra of infrared quenching, Hall mobility of majority current carriers and its dependence on temperature, concentration and depth of occurrence of capture levels, characteristics of recombination centers, and luminescence spectra at 300 and 77K. Mobility and spectral distribution of photoconductivity were measured in a cryostat at a vacuum of the order of  $10^{-4}$  mm Hg. All other characteristics were measured in the air. It was found that gamma-irradiation primarily creates acceptor-type defects. In CdS, the simplest acceptors can be Cd vacancies or S atoms in interstices. Neutron irradiation creates donor-type defects. The simplest donors can be either Cd atoms in interstices or S vacancies. In addition, the products of nuclear transformations can also be donors. Orig. art. has: 6 figures and 2 tables. [JA]

SUB CODE: 20 / SUBM DATE: 09Aug65 / ORIG REF: 008 / OTH REF: 019  
ATD PRESS: 4236

Card 2/2 ULR

GALUSHKO, A., inzh.-tekhnolog

Faster and more convient. Grashd.ez. 17 no.1:27 Ja '60.  
(MIRA 13:5)  
(Zinc plating)

LERNER, M.Ye.; GALUSHKO, A.D.; LESHCHINER, R.M.

New electrolyte for electrolytic cadmium plating. Mashinostroenie  
no.1:74-75 Ja-F '62. (MIRA 15:2)

1. Kiyevskiy institut grazhdanskogo vozduzhnogo flota.  
(Electrolytes)  
(Cadmium plating)

GALUSHKO, A.D., ..., BYKOV, A.N., inzh.

The BRT-70 automatic noncontact current reverser. Mashino-stroenie no.3:70-72 My-Je 463. (MIRA 16:7)

1. Kiievskiy institut grazhdanskogo vozdukhnogo flota (for Galushko). 2. Institut elektrotel'maniki AN UkrSSR (for Bykov). (Electroplating-Equipment and supplies)

GALUSHKO, A.D., inzh.

Investigating the microstructure of zinc platings obtained from  
various electrolytes. Mashinostroenie no.5:93-94 S-0 '63.

(MIRA 16:12)

1. Kiyevskiy institut grazhdanskogo vozдушного flota.

L 8937-65 EWT(m)/EPF(c)/EPR/T/EWP(q)/EMP(h) Pr-4/Ps-4 AFTC(p) JD/DJ  
ACCESSION NR: AP4044283 S/0304/64/000/004/0075/0076

AUTHOR: Klyuchko, M. G. (Engineer); Pakhotnov, A. V. (Candidate of technical sciences); Galushko, A. D. (Engineer)

TITLE: Improvement of the wear resistance of an anodized layer

SOURCE: Mashinostroyeniye, no. 4, 1964, 75-76

TOPIC TAGS: aluminum alloy, aluminum alloy wear resistance, anodized layer wear resistance

ABSTRACT: To improve the wear resistance of anodized layers on the D16T aluminum alloy, a method of filling these layers with a mixture of sulfur and paraffin has been developed. The anodized aluminum alloy parts are treated at 60°C or at room temperature for 10—15 min in a bath consisting of a solvent (such as benzene or carbon disulfide), sulfur, and paraffin. The treatment produces a wear-resistant coating which in operation sulfidizes the surface of contacting parts and serves as a lubricant. This treatment reduces the friction coefficient by 35—50% and prevents seizing and fretting.

Card 1/2

L-8937-65

ACCESSION NR: AP4044283

ASSOCIATION: none

SUBMITTED: 00

ATD PRESS: 3109

ENCL: 00

SUB CODE: MM

NO REF Sov: 000

OTHER: 000

Card 2 / 2

KLYUCHKO, M.G., inzh.; PAKHOTNOV, A.V., kand. tekhn. nauk; GALUSHKO,  
A.D., inzh.

Increasing the wear resistance of an anodized layer.  
Mashinostroenie no.4:75-76 Jl-Ag '64. (MIRA 17:10)

LERNER, M.Ye.; GALUSHKO, A.D.; SHIRYAYEVA, A.N.

Alkaline electrolyte for bismuth plating. Ukr. Khim. zhur. 3C no.11:  
1234-1235 '64. (MIRA 18:2)

1. Kiyevskiy institut Grazhdanskogo vozdushnogo flota.

GALUSHKO, A.I.

New species of wild roses from the Caucasian flora. Bot.mat.  
Derb. 19:204-217 '59. (MIRA 12:8)  
(Kabardia--Roses)

GALUSHKO, A.I.

Occurrence of *Rosa mollis* Smith. in the Caucasus. Bot.mat.  
Gerb. 19:218-224 '59. (MIRA 12:8)  
(Caucasus--Roses)

GALUSHKO, A. I. Cand Biol Sci -- (diss) "Briars of the central region of the northern slope of the Bol'shoy Caucasus and their economic value." Len, 1959.

26 pp (Acad Sci USSR. Botanical Inst im V. L. Komarov), 150 copies (KL, 50-59, 125)

--13-

MALAKHOV, N.I.; GNILOVSKIY, V.G., kand.geograf.nauk; VOLODKEVICH, I.I.  
starehiy nauchnyy sotrudnik [deceased]; SEREDIN, R.M., dotaent,  
kand.biolog.nauk; VISHNEVSKIY, A.S., doktor med.nauk; SKRIPCHINSKIY,  
V.V., dotaent; GALUSHKO, A.I.; KHARCHENKO, L.I., red.; STEBLYANKO,  
T.V., tekhn.red.

[Caucasian Mineral Waters] Kavkazskie Mineral'nye Vody; putesvoditel'.  
Izd.5., perer. i dop. Stavropol', Stavropol'skoe knizhnoe izd-vo.  
1960. 339 p. (MIRA 13:11)

1. Bal'neologicheskiy institut na Kavminvodakh (for Volodkevich).  
(CAUCASUS--MINERAL WATERS)

GALUSHKO, A.I.

Occurrence of *Rosa glabrifolia* C.A.M. in the Caucasus.  
Bot.mat.Gerb. 20:194-204 '60. (MIRA 13:7)  
(Razvalka, Mount—Roses)

GALUSHKO, A. I.

New wild roses from the Northern Caucasus. Bot. mat.  
Gerb. 20:205-216 '60. (MIRA 13:7)  
(Caucasus—Roses)

GALUSHKO, A.I.

Materials on the study of wild roses of the Northern Caucasus.  
Bot. mat. Gerb. 21:206-232 '61. (MIRA 14:10)  
(Caucasus--Roses)

GALUSHKO, A.I.

New species of wild roses of the central Caucasus. Uch. zap.  
Kab.-Balk. gos. un. no. 12:51-56 '62. (MIRA 16:6)

(Kabardino-Balkar A.S.S.R.—Roses)

GALUSHKO, A.I.

Rosa boissieri Crep. and its place in the system of the genus.  
Uch. zap. Kab.-Balk. gos. un. no.12:57-62 '62. (MIRA 16:6)

(Caucasus---Roses)

GALUSHKO, A.I.

Is "series" a universal category? Uch. zap. Kab. - Balk. gos.  
un. no.14:23-30'62. (MIRA 16:6)  
(BOTANY--CLASSIFICATION)

GALUSHKO, A.I.; KUDRYASHOVA, G.L.

Ferns of the Kabardino-Balkar A.S.S.R. Uch.zap. Kab.-Balk. gos.  
un. no. 14:31-43'62. (MIRA 16:6)  
(KABARDINO-BALKAR A.S.S.R.—FERNS)

GALUŠKO, A.I.; POPOVA, T.H.

Taxonomy of the section Anodon Bge of the genus Pedicularis L.  
Uch.zap. Kab.-Balk. gos. un. no.14:44-51 '62. (MIRA 16:6)  
(LOUSEWORT)

GALUSHKO, A.M.

Chemical composition of beech leaves used as feeding stuff  
for Chinese tussah moth. Uch. zap. MGPI 140:239-253 '58.  
(MIRA 16:8)

1. Iz laboratorii organicheskoy i biologicheskoy khimii  
Moskovskogo gosudarstvennogo pedagogicheskogo instituta  
imeni Lenina.

GALUSHKO, A.M.

Change in the content of nutritive substances in detached leaves  
of the European beech. Nauch. dokl. vys. shkoly; biol. nauki  
no.3:163-165 '63. (MIRA 16:9)

1. Rekomendovana kafedroy organicheskoy i biologicheskoy khimii  
Moskovskogo gosudarstvennogo pedagogicheskogo instituta im.  
V.I.Lenina.

(Beech) (Plants—Chemical analysis)  
(Silkworms—Feeding and feeds)

KHUDOKORMOV, D.N.; YERSHOVICH, A.N.; Prinimali uchastiye: FEDCHENKO,  
A.M.; SHURUPOV, V.I.; BOLOTSKIY, V.D.; KOMAROV, O.S.;  
ANDROSIK, Ye.I.; KUDI, V.I.; GALUSHKO, A.M.; KLEYEV, A.N.;  
KHOSEN, R.I.; MURASHKO, O.A.

Technology of the production of gray cast iron in the manu-  
facture of tractor trucks. Lit. proizv. no.7:37-38 J1 '63.  
(MIRA 17:1)

1. Nauchno-issledovatel'skiy tekhnologicheskiy institut  
avtomobil'noy promyshlennosti (for all except Khudokormov).

GALUSHKO, A.M.

Amino acid composition of beech leaves: Nauch. dokl. vys. shkoly; biol. nauki no.4:145-147 '64. (MIRA 17:12)

1. Rekomendovana kafedroy organicheskoy i biologicheskoy khimii Moskowskogo gosudarstvennogo pedagogicheskogo instituta im. V.I. Lenina.

L 62957-65 EWT(1)/EWT(m)/EWP(1)/T/EWP(t)/EWP(k)/EWP(b)  
ACCESSION NR: AP5020388

1JP(E) JD  
UR/0364/65/001/008/0985/0988  
S41.13

AUTHOR: Trofimov, A. N.; Galushko, A. P.

TITLE: Cathode polarization during electrodeposition of metals in an ultrasonic field

SOURCE: Elektrokhimiya, v. 1, no. 8, 1965, 985-988

TOPIC TAGS: copper, nickel, electrodeposition, cathode polarization, ultrasonic field

ABSTRACT: A definite relationship was observed during investigation of electrochemical crystallization of metals in an ultrasonic field between the effect of ultrasound on the rate of electrolysis and the nature of the electrode polarization. In this work an experimental investigation was conducted on the effect of ultrasound on the mechanism of electrode processes during electrodeposition of copper and nickel from aqueous solutions. The experimental results on deposition of copper from a copper sulfate-phosphate electrolyte show that ultrasound changes the nature of electrolyte polarization, and chemical polarization becomes the limiting factor in the cathode process. As the polarization potential is increased, the activation

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L 62957-55  
ACCESSION NR: AP5020388

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energy decreases, i.e. chemical polarization tends to become concentration polarization. Deposition of nickel from a nickel sulfate-sodium chloride-boric acid bath is limited by chemical polarization. Ultrasound does not change the nature of polarization, but causes some reduction in the energy of activation of the cathodic process. All current-temperature curves for copper sulfate solution at constant polarizing potential pass through a maximum. This occurs during deposition of copper under ordinary conditions as well as in an ultrasonic field. Orig. art. has 8 figures.

ASSOCIATION: Bashkirskiy gosudarstvennyy universitet im. 40-letiya oktyabrya  
(Bashkir State University)

SUBMITTED: 19Aug64

ENCL: 00

SUB CODE: EM, MM

NO REF Sov: 005

OTHER: 000

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Card 2/2

GALUSHKO, A. YA., CAND GEOO SCI, "SURFACE LEVELING IN  
THE TRAPPEAN ZONE OF THE CENTRAL SIBERIA PLATEAU." Moscow,  
1960. (ACAD SCI USSR, INST OF GEOO). (KL, 3-61, 206).

VOROB'YEV, M.K., inzh.; SAZHIN, F.N., nauchnyy sotrudnik; GALUSHKO, E.D.,  
inzh.-konstruktor

Permanent unit for spraying plants in greenhouses. Zashch.rast.  
ot vred.i bol. 4 no.6:23-24 N-D '59. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut ovoshchnogo khozyeystva RSFSR.  
(for Sazhin, Galushko).  
(Spraying and dusting equipment) (Greenhouse management)

GALTSHKO, E. D., inzh.

Equipment for spraying plants under glass. Zashch. rast. ot  
vred. i bol. 5 no.10:13-15 0 '60. (MIRA 16:1)

1. Nauchno-issledovatel'skiy institut ovoshchnogo khozyaystva  
RSFSR, st. Perlovskaya, Moskovskoy zheleznoy dorogi.

(Moscow Province—Spraying and dusting equipment)  
(Greenhouse management)

KRIVENKO, P.M., kand. tekhn. nauk; GALUSHKO, F.L., inzh.

Experimental investigation of the kinematics of the pressure  
valve of a fuel pump.. Trakt. i sel'khozmash. 33 no.7:11-13  
JL '63. (MIRA 16:11)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy  
tekhnologicheskiy institut remonta i ekspluatatsii mashinno-  
traktornogo parka.

KHAVKIN, K., kand. tekhn. nauk; GALUSHKO, G., inzh.

Using electronic computers in designing the longitudinal road profile by the method of reference points. Avt. dor. no. 10.  
9-10 O '64. (MIRA 17-12)

GALUSHKO, K.; KUGUSHEV, V.

About V.D. Ilysenko's article "Safety specialists in mines". Besop. truda  
v prom. 2 no.11:19 N '58. (MIRA 11:11)

1. Starshiy inzhener tekhnicheskogo otdela Inganskogo sovnarkhoza (for  
Galushko). 2. Zamestitel' nachal'nika tekhnicheskogo otdela Kemerovskogo  
sovnarkhoza. (for Kugushev).  
(Mining engineering--Safety measures)

GALUSHKO, K.

In Lugansk Economic Council. Bezop.truda v prom. 4 no.1:37  
Ja '60. (MIRA 13:5)

1. Starshiy inzhener proizvodstvenno-tekhnicheskogo otdela  
Luganskogo sovnarkhoza.  
(Lugansk--Industrial safety)

NOTSENKO, P.S.; GALUSHKO, L.G.

- Study of the fractional composition of proteins of antitetanus serum in the immunization process. Trudy Irk. NIIEM no. 6:26-33 '61. (MIRA 17:7)

GALUSHKO, L.G.; IVANOVA, Ye.I.; POZDNOVA, Ye. N.

Fractional composition of proteins and losses of antitoxin in  
the purification and concentration of antidiphtheria serum.  
Trudy Irk. NIIEM no. 6;93-104 '61. (MIRA 17:7)

I. Iz proizvodstvennogo otdela i biokhimicheskoy laboratorii  
Irkutskogo nauchno-issledovatel'skogo instituta epidemiologii  
i mikrobiologii.

BORYCHEV, Nikolaiy Ivanovich; GALUSHKO, L.L., retsezent;  
FOKROVSKAYA, I.M., ved. red.

[In aid of the newly hired miner] V pomoshch' rabochemu  
vpervye postupivshemu na shakhtu. Moskva, Nedra, 1965.  
183 p. (MIRA 18:12)

GALUSHKO, M.D., Cand Tech Sci — (diss) "Study of the thermal method  
of reduction of pig iron parts of tractors." (in Russian)

Kiev, 1959. 24 pp with graphs (Min of Agriculture UkrSSR Ukr Acad  
of Agr Sci). 150 copies (KL,40-59, 103)

GALUSHKO, M.D., kand. tekhn. nauk

" Improve the technological efficiency of tractor repairing. Trakt.  
i sel'khozmash. 33 no.7:5-8 Jl '63. (MIRA 16:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii i  
elektrifikatsii sel'skogo khozyaystva.

GALUSHKO, M. K.

2314 ITOGI RASOBY STANITSII RUDN Chelyab TERR. SVBODA V 1948 XDU. SBOREK  
STATEY (GOS. MIKEYEVSK. LAUCH.-ISSLED. IN-T PO ZEM. PASHOV RUDOT  
V GORODY PRIM - STI), 1949, May, C. 10-14

SQ: LETOPIS' NO. 31, 1949

GALUSIK, M. R.

Pit wagons of the MakNII for the transportation of personnel in inclined mining.  
Moskva, Ugletehnizdat, 1950. 51 p. (51-24527)

TN336.G?

GALUSHKO, M. K. and K. A. IUSIN.

Vagonetki MakNII dlia per<sup>e</sup>vozki liudei po naklonnym vyrabotkam;  
rukovodstvo po ukhodu i eksploatatsii. Moskva, "gletekhizdat", 1950. 51 p. diagrs.

MakNII cars for transportation of people in sloping mines; manual of  
maintenance and operation.

DLC: TN336.G3

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library  
of Congress, 1953.

GALUSHKO, M.K.; KROPACHEV, A.A., redaktor; KOHOVENKOVA, Z.A., tekhnicheskiy  
redaktor.

[Transporting men in mines] Perevoska liudej po shakhtnym vyrabotkam.  
Moskva, Ugletekhizdat, 1954. 173 p.  
(Mine haulage)

GAIUSHKO, M., kandidat tekhnicheskikh nauk.

Let's push the change from turnsheets to sidings. Mast.uglia  
5 no.1:21-23 Ja '56. (MLRA 9:5)  
(Mine railroads)

GRIGOR'YEV, Vadim Nikolayevich; GALUSHKO, M.K., kand.tekhn.nauk, retsenzent;  
KOLOMIYTSEV, A.D., otv.red.; SABITOV, A., tekhn.red.; KOROVENKOVA,  
Z.A., tekhn.red.

[Mechanized transportation of miners] Mekhanizatsiya perevozki liudej  
po gornym vyrabotkam, Moskva, Ugletekhnidat, 1958. 203 p.  
(MIRA 12:6)

(Mine haulage) (Mine railroads)

RENGEVICH, A.A., kand.tekhn.nauk; SHAKHTAR', P.S., inzh.; VOLOD'KO, K.P.,  
inzh.; YUSHCHENKO, A.I., inzh.; GALUSHKO, M.K., kand.tekhn.nauk;  
KUZNETSOV, B.A., kand.tekhn.nauk; KUDEL'YA, G.Ya., inzh.;  
MEKHEDA, M.K., inzh.; OKHRIMCHUK, O.Kh., tekhnik

Causes of the breaking of axles of electric mine locomotives.  
Vop. rud. transp. no.6:192-203 '62. (MIRA 15:8)

1. Dnepropetrovskiy gornyy institut (for Rengevich, Kuznetsov,  
Kudelya, Mekheda, Okhrimchuk). 2. Donetskij nauchno-issledovatel'skiy  
ugol'nyy institut (for Shakhtar', Galushko). 3. Aleksandrovskiy  
mashinostroitel'nyy zavod (for Volod'ko, Yushchenko).  
(Mine railroads) (Axles--Testing)

GEY/ER, V.G.; GALUSHKO, M.K.; MULIN, N.V.

Air life hoisting and hoisting with chamber feeders. Ugol' 39 no.  
9:49-53 S '64. (MIRA 17:10)

1. Donetskij politekhnicheskiy institut (for Geyyer). 2. Donetskij nauchno-issledovatel'skiy ugol'nyy institut (for Galushko). 3. Ukrainskiy nauchno-issledovatel'skiy institut gidrodobychi uglya (for Mulin).

GALUSHKO, N., normirovshchik

Mechanical slate duster. Sovshakht. 10 no.11:24 N '61.  
(MIRA 14:11)

1. Shakhta No.12 imeni Dzerzhinskogo tresta Kad'yevngol'.  
(Coal mines and mining-Equipment and supplies)

S/131/62/000/005/001/004  
B105/B138

AUTHORS: Aleksandrova, T. A., Prokhorova, I. Ya., Galushko, N. A.,  
Shabashov, Ya. F., Frumkina, Yu. A.

TITLE: Carborundum-graphite crucibles for the melting of copper-base alloys

PERIODICAL: Ogneupory, no. 5, 1962, 208-211

TEXT: A production process for crucibles suitable for producing copper-chromium master alloys and chromium bronze in the high-frequency furnace CKf-281 (OKB-281) has been developed at the Vsesoyuznyy institut ogneuporov (All-Union Institute of Refractory Materials). 500 kg crucibles were produced by hydrostatic pressing in the Luzhskiy zavod "Krasnyy tigel'" (Luga Plant "Krasnyy tigel'"). The charge consisted of carborundum, crucible graphite, elementary silicon, and Chasov-Yar clay, with sulfite-alcohol waste liquor, density 1.27 g/cc., as binder. During the burning,  $\beta$ -SiC is formed from the elementary silicon and graphite:  $Si + C \rightarrow \beta - SiC$ .  $Si_{el}$  and SiC were determined in the analytical chemistry laboratory of the VIO by K. K. Kolobova's method. After burning the

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S/131/62/000/005/001/004

Carborundum-graphite crucibles for ...

B105/B138

crucibles showed the following properties: apparent porosity 19.8%, compressive strength 145 kg/cm<sup>2</sup>, electrical volume resistivity 0.0044 ohm · mm<sup>2</sup>/m, permeability to gas 0.02 l·m/m<sup>2</sup>·hr·mm water column, depth of cavity in a sandblast wearability test 4.9 mm, coefficient of thermal conductivity at 800°C λ = 8.5 kcal/m·hr·degrees. Microscopic examination showed that the crucibles contained no metal after use in the OKB-281 furnace. 500 kg carborundum-graphite crucibles have a life of 35-40 copper-chromium melts, and up to 75 for the EX-08 (BKh-08) bronze. Because of the low resistivity of the crucibles, the furnace could be finely adjusted, the metal melted more rapidly and, besides this, the electro corundum crucible bedding was well fritted. These crucibles are suitable for the producing copper-base alloys with a permissible silicon content of up to 0.02 - 0.03%. There are 2 figures and .5 tables.

Card 2/3

Carborundum-graphite crucibles for ...

S/131/62/000/005/001/004  
B105/B138

ASSOCIATION: Vsesoyuznyy institut ogneuporov (All-Union Institute of Refractory Materials) (Aleksandrova, T. A., Prokhorova, I. Ya.); Zavod "Krasnyy Tigel'" (Plant "Krasnyy Tigel'") (Galushko, N. A.); Zavod "Krasnyy Vyborzhets" (Plant "Krasnyy Vyborzhets") (Shabashov, Ya. F., Frumkina, Yu. A.).

Card 3/3

GALUSHKO, N. I.

Galushko, N. I. - "Certain problems of the stability of the overheads in the potash mines in the Vekhnekamskiy potash deposit", (Report), Trudy Soveshchaniya po upravleniyu gornym davleniem, (1946), Moscow, 1948, p. 177-85.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

GALUSHKO, N. I.

29037 Kavernaya sistema pri dobache solyanykh rassolov shakhtnym sposobom. Gornyy zhurnal, 1949, No. 9, s. 7-9 g. Dobycha goryuchikh iskopaemykh

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

GALUSEKO, N.P.; GRITSAN, D.N.; SHATROVSKIY, G.L.

Alteration of the measuring range of a self-recording EPP-09  
potentiometer. Zav. lab. 31 no.8:1027-1028 '65. (MIKA 18:9)

L. Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo.

BILIKIEWICZ, T.; GALUSKO, P.

Therapeutic value of atropine coma in the treatment of schizophranic and anancastic complexes. Cesk. psych. 60 no. 6: 361-366 N ' 64.

I. Klinika psychickich chorob lekarske akademie v Gdansku.

GALUSHKO, Paweł.

GALUSHKO, Paweł; SULESTROWSKI, Waldemar

Insulin shock therapy with intravenous injections. Neurologia etc.  
polska 5 no.1:77-80 Jan-Feb 55.

1. Z kliniki chorób psychiatrycznych A.M. w Gdansku; dyrektor prof.  
dr. T.Biliakiewicz.

(SHOCK THERAPY, INSULIN  
in psychiatry, intravenous inject.)

(MENTAL DISORDERS, therapy  
insulin shock ther., intravenous inject.)

GAIUSHKO, P.N.

Investigating the kinetics of the oxidation of carbon in an atmosphere of carbon dioxide and water vapor. Khim i tekhn. topl. i masel 3 no.3:56-63 Mr '58. (MIRA 11:3)

1.Institut goryuchikh iskopayemykh im. G.M. Krzhizhanovskogo AN SSSR.  
(Carbon) (Oxidation) (Chemical reaction, Rate of)

54700 1687

S/080/60/0337007/021/024/XX  
21737  
D270/D304

AUTHORS: Galushko, V.P., Zavgorodnyaya, Ye.F. and Gayvoronskaya, L.K.

TITLE: The cathode reduction of magnetite

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 1, 1960, 1546-1551

TEXT: This study was carried out to supplement a previous one on the cathode reduction of ferric oxide,  $Fe_2O_3$ . Method: Magnetite was obtained by the oxidation of low carbon iron in a current of carbon dioxide at 900 - 1000° for 8 - 10 hours. 50 - 60 g of low carbon iron wire were placed in a porcelain tube between two iron or nickel screens and carbon dioxide was passed through the furnace at a constant rate of 50 - 60 l/hr. On analysis the product contained  $FeO$  32.2%,  $Fe_2O_3$  67.5%, Femet 0.3% or  $Fe_3O_4$  97.9%,  $FeO$  1.86%,  $Fe_{met}$  0.3%. The magnetite obtained was pounded and sifted. Pieces with dimensions smaller than 25 mm were subjected to cathode reduction. 5 g of magnetite were soaked in electrolyte and pasted on Card 1/7

24737

The cathode reduction of magnetite

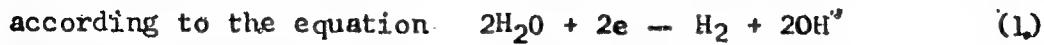
S/080/60/033/007/021/024/XX  
D270/D304

both sides of a lamellar cathode which was then wrapped in linen and bound tightly with thin twine. The method of cathode reduction and iron analysis was similar to that of V.P. Galushko Ye. F. Zavgorodnyaya and L.I. Tischenko (Ref. 6: ZhPKh, XXXII, 7, 1551, (1957)). The percentage of  $Fe_{met}$  in the mixture of  $Fe_{met}$  and unreduced magnetite obtained was calculated and the percentage reduction of  $Fe_3O_4$  worked out from the ratio of the percentage of metallic iron to the sum of  $Fe_{met}$  and iron contained in the unreduced magnetite. Unless otherwise indicated all experiments continued for a period theoretically sufficient to reduce the magnetite completely and, therefore, the percentage of reduced magnetite is numerically equal to the yield of iron for the given current. Experiments were done at least twice and average results presented. The results are as follows:  
a) The effect of electrolyte composition and concentration: (Table 1)  $Fe_3O_4$  dissolves in acids, is slightly reduced in neutral  $Na_2SO_4$  ( $Na_2SO_4$ , 10  $H_2O$  - 32 g/l); reduces best in  $NaOH$  (400 g/l) which was, therefore, used as an electrolyte. In alkaline solutions the reduction of briquetted magnetite is accompanied by the simultaneous production of hydrogen through the dissociation of a molecule of water

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The cathode reduction of magnetite

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D270/D304



With an increase in alkali concentration, the activity of the water molecule declines, the hydrogen production potential becomes more electronegative, hydrogen formation more difficult and the percentage reduction of  $Fe_3O_4$  rises; b) The effect of current density ( $D_k$ ): (Table 2): The percentage reduction of  $Fe_3O_4$  falls with an increase in current density. A.F. Afanas'yeva and O.Ya. Miroshnichenko (Ref. 11: NDVSh., Khim. i Khim. tekhnol., 4, 642 (1958)) and (Ref. 12: Ukr. khim. zh., 25, 3, 326 (1959)), studying single crystals of magnetite, showed that Eq. (1) and the electroreduction of magnetite:  $Fe_3O_4 + 4H_2O + 8e \rightarrow 3Fe + 8OH^-$  (2)

occur simultaneously and that as current density increases hydrogen formation comes to predominate since Eq. (2) cannot guarantee passage of large amounts of current; c) The effect of temperature:  $80^\circ$  was chosen as a working temperature since above this the electrolyte evaporates rapidly and frequent correction must be made. Above  $60^\circ$  the percentage reduction of  $Fe_3O_4$  increases slowly, probably because of the low electric conductivity of briquetted magnetite. The hydrogen super-tension declines with an increase in temperature

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S/080/60/033/007/021/024/XX  
D270/D304

The cathode reduction of magnetite

and the percentage reduction of  $\text{Fe}_3\text{O}_4$  would also be expected to fall. In fact it rose implying that  $\text{Fe}_3\text{O}_4$  reduction supertension fell to a much greater extent than that of the  $\text{H}_2$  solution; d) The granulometric composition of magnetite: Cathode reduction affects the outer layers of  $\text{Fe}_3\text{O}_4$  particles first. The central areas are much more difficult to attack. Therefore, the greater the surface area, i.e. the more rugged the particle surface, the greater the percentage reduction. The granulometric composition of iron powder obtained after reduction contained a small quantity of smaller and larger than average particles but was for the most part (86 - 90%) unchanged. It was concluded that reduction of  $\text{Fe}_3\text{O}_4$  in these experimental conditions occurred in the solid phase; e) The quantity of electricity: Under optimal conditions, the passage of an amount of electricity,  $Q_{\text{theor}}$ , theoretically sufficient to reduce a given amount of  $\text{Fe}_3\text{O}_4$  completely proved insufficient since part was expended on the reduction of hydrogen. When  $\frac{Q}{Q_{\text{theor}}} = 4$  reduction of  $\text{Fe}_3\text{O}_4$  was virtually completed but only 93% of iron was obtained, part being oxidized during washing and drying. If after removal of alkali the

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The cathode reduction of magnetite

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S/060/60/033/007/021/024/xx  
D270/D304

iron powder was washed with ethyl alcohol it dried much more rapidly, further oxidation was almost completely avoided and yield of Femet increased to 99.7%. The iron powder was grey and fine. Conclusions: 1) The greatest percentage reduction of  $Fe_3O_4$  occurred with NaOH (400 g/l) solution as electrolyte. It increased with rise in temperature, rise in quantity of electricity, decrease in current density, decrease in size of magnetite particles. 2) During reduction the majority of particles keep their initial dimensions. 3) It was suggested that in the condition of this study cathode reduction of  $Fe_3O_4$  occurred in the solid phase. There are 2 figures, 5 tables and 12 references: 11 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

SUBMITTED: August 31, 1959

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GALUSHKO, V.P.; ZAVGORODNYAYA, Ye.F.; GAYVORONSKAYA, L.K.

Cathodic reduction of magnetite. Zhur.prikl.khim. 33 no.7  
1546-1551 Jl '60. (MIRA 13:7)

1. Dnepropetrovskiy gosudarstvennyy universitet.  
(Magnetite) (Reduction, Electrolytic)

ZAVGORODNYAYA, Ye.F.; GALUSHKO, V.P.; DOROSH, T.P.

Mechanism of the cathodic reduction of copper oxide. Part 1:  
Cathodic polarization of the copper oxide electrode. Ukr. khim.  
zhur. 27 no.1:43-48 '61. (MIRA 14:2)

1. Dnepropetrovskiy gosudarstvennyy universitet im. 300-letiya  
vossoyedineniya Ukrainy s Rossiyey.  
(Copper oxide)

GALUSHKO, V.P.; ZAVGORODNYAYA, Ye.F.; SAZONOVA, G.A.

Mechanism of the reduction of cupric oxide at the cathode. Part 2:  
Effect of the pH of the solution on the potential of the copper  
oxide electrode. Ukr khim. zhur. 27 no.2:176-180 '61. (MIRA 14:3)

1. Dnepropetrovskiy gosudarstvenny universitet im. 300-letiya  
vossoyedineniya Ukrayiny s Rossiyey.

(Copper oxide)  
(Electromotive force)

27678  
S/073/61/027/005/002/004  
B103/B101

51310

AUTHORS: Dorosh, T. P., Galushko, V. P.

TITLE: Reduction of silver chloride by hydrogen adsorbed on the surface of powdery silver

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 27, no. 3, 1961, 603-607

TEXT: In earlier papers (Refs. 1 and 2, in print) it was proved that the sparingly soluble compounds silver chloride, - sulfate, and - sulfide are reduced at a current density higher than the limiting density. In spite of this, the current yields calculated for metallic silver approach 100%. The reduction and the formation of black silver powder require a potential jump toward negative values and a simultaneous H<sub>2</sub> separation at the

beginning of the process. The formation zone of the black silver powder is located at the place of contact of the reduced silver with the non-reduced salt. This indicates that the reduction of sparingly soluble compounds is not only possible via the stage of dissolution. With low concentrations of silver ions ( $10^{-10}$  and  $10^{-17}$  g·ion/liter, respectively)

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S/073/61/027/005/002/004  
B103/B101

Reduction of silver...

the diffusion cannot safeguard the reduction rates actually observed. On the other hand, the fine-disperse powder is formed under conditions that would not permit an inhibition of H<sub>2</sub> separation. The purpose of the present paper was to examine whether hydrogen adsorbed on the surface of silver powder acts as an intermediate reagent in the reduction of sparingly soluble silver compounds. Fig. 1 shows the cathode part of the cell used, Fig. 2 the electric circuit for recording the charge-discharge curves. Silver powder formed by reduction of silver chloride was found to be capable of adsorbing large H<sub>2</sub> quantities. This H<sub>2</sub> reduces silver chloride in a secondary process. The polarizing capacitance of the surface of silver powder reaches 10<sup>3</sup>  $\mu$ F/cm<sup>2</sup>, calculated from the charge curves. The H<sub>2</sub> adsorbed is assumed to take part in the reduction of silver chloride as an intermediate reagent. This increases considerably the total rate of reaction. Mention is made of Bagotskiy, Iofa, and Frumkin, as well as papers by A. I. Shlygin (Trudy soveshchaniya po elektrokhimii, M., 1953, p. 322), and A. A. Rakov (Vliyaniye predvaritel'noy obrabotki serebra na yego absorpcionnyye i elektrokhimicheskiye svoystva (Effect of silver pretreatment on its absorptive and electrochemical properties). Candidate

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Reduction of silver...

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S/073/61/027/005/002/004  
B103/B101

dissertation, M., 1947). There are 5 figures and 9 references: 7 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: G. M. Schwab, J. Phys. and Coll. Chem., 54, 576 (1950); A. G. Ferguson and P. K. Turner, J. Electrochem. Soc., 101, 382 (1954).

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University) (T. P. Dorosh) Dnepropetrovskiy meditsinskiy institut (Dnepropetrovsk Medical Institute) (V. P. Galushko)

SUBMITTED: June 15, 1960

Card 3/4

DOROSH, T.P.; GALUSHKO, V.P.

Study of the cathodic reduction of some slightly soluble  
compounds of silver. Part 1: Microscopic examination.  
Ukr.khim.zhur. 27 no.5:607-612 '61. (MIRA 14:9)

1. Dnepropetrovskiy gosudarstvennyy universitet.  
(Silver compounds)  
(Reduction, Electrolytic)

GALUSHKO, V.P.; ZAVGORODNYAYA, Ye.F.; SEMERYUK, V.I.; BATURA, Z.Ye.

Cathodic reduction of copper oxide. Zhur.prikl.khim. 34 no.8:1819-  
1825 Ag '61. (MIRA 14:8)  
(Copper oxide) (Reduction, Electrolytic)

DOROSH, T.P.; GALUSHKO, V.P.

Cathodic reduction of some slightly soluble silver compounds.  
Part 2. Polarization measurements. Ukr. khim. zhur. 28 no.1:  
'66-'72 '62. (MIRA 16:8)

1. Dnepropetrovskiy gosudarstvennyy universitet im. 300-  
letiya vospredineniya Ukrainy s Rossiyey i Dnepropetrovskiy  
meditsinskiy institut.

GALUSHKO, V.P.; ZAVGORODNYAYA, Ye.F.

Cathodic behavior of a cuprous oxide electrode. Ukr.kn. ir.  
28 no.4:496-499 '62. (MIRA 15:8)

1. Dnepropetrovskiy gosudarstvennyy universitet imeni 300-letiya  
vostochedineniya Ukrainy s Rossiyey.  
(Electrodes, Copper)

ACCESSION NR: AT4030812

S/0000/63/000/000/0433/0437

AUTHOR: Galushko, V. P.; Dorosh, T. P.

TITLE: On the role of surface phenomena in the electro-chemical production of superfine metal powders

SOURCE: AN UkrSSR. Institut metallokeramiki i spetsial'nykh splavov. Poverkhnostnye yavleniya v rasplavakh i protsessakh poroshkovoy metallurgii (surface phenomena in liquid metals and processes in powder metallurgy). Kiev, Izd-vo AN UkrSSR, 1963, 433-437

TOPIC TAGS: surface phenomenon, superfine metal powder, surface tension, surface active substance, electrolysis, cathode reduction, particle size

ABSTRACT: The authors stated that in the cathode reduction of low solubility compounds, because of the insignificant concentration of metal ions in the solution and the sharp shift of the electropotentials to the negative, a ratio of velocities is created in the nucleus formation and growth of the crystals which is quite suitable for forming superfine metal powders. The less solubility of the reduced substance and the greater the velocity of reduction (i.e., the more the separation of

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ACCESSION NR: AT4030812

the metal occurs in more irreversible conditions), the higher the particle size of the obtained powders. Storing of metal powder produced by cathode reduction of low solubility compounds of large particle size and, at the same time, free of oxides and organic substances, it is possible only in a vacuum or in an atmosphere of inert gas. To protect it from coagulating and from oxidation in the air, it is necessary to introduce surface active substances into the electrolyzers. Low solubility silver compounds are the most suitable objects for studying the surface phenomena in the formation and recrystallization process.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

SUBMITTED: 23Nov63

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: ML

NO REF Sov: 009

OTHER: 000

Card 2/2

GALUSHKO, V.P.; KOVTUN, V.N.; KRICHMAR, S.I.

Study of the anolyte layer by microscopy. Ukr. khim. zhur.  
29 no.7:764-770 '63. (MIRA 16:8)

1. Dnepropetrovskiy gosudarstvennyy universitet.  
(Electroplating) (Electrodes) (Microscopy)

GALUSHKO, V.P.; LIMIN, B.Ye.

Resonance properties of electrochemical autooscillation systems.  
Dokl. AN SSSR. 154 no.1:191-192 Ja'64. (MIRA 17:2)

1. Dnepropetrovskiy gosudarstvennyy universitet im. 300-letiya  
vostochedineniya Ukrayiny s Rossiyey. Predstavлено akademikom  
A.N. Frumkinym.

I 9631-66 EWP(e)/EWT(m)/EWP(t)/EWP(b)  
ACC NNR: AP5027712

IJP(c) JD  
SOURCE CODE: UR/0129/65/000/011/0040/0041

AUTHOR: Galushko, V. P.; Masal'skiy, V. L.; Varenko, Ye. S.; Ivanchenko-Lirskiy,  
Yu. M.

ORG: Dnepropetrovsk State University (Dnepropetrovskiy gosudarstvennyy universitet)

TITLE: Effect of the composition of electrolytic bath on the temperature of the  
electrochemical boronizing of steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1965, 40-41

TOPIC TAGS: boronizing, electrolyte, sodium carbonate, viscosimeter

ABSTRACT: This investigation deals with the viscosity of fused electrolyte as a function of the concentration of added  $\text{Na}_2\text{CO}_3$  at 800, 850, and 900°C -- high temperatures at which  $\text{Na}_2\text{CO}_3$  is thermally decomposed to form  $\text{Na}_2\text{O}$  and  $\text{CO}_2$ ; hence the addition of  $\text{Na}_2\text{CO}_3$  to the electrolyte does not alter the latter's composition; the only change occurs in the ratio between the oxides of sodium and boron and, in addition, the fusing point decreases markedly. Prior to the measurements the components were fused at 1000°C. Viscosity was measured with the aid of a container of KhN78T steel with graduated removable capillaries. The rated viscosity was determined according to the outflow of a specified volume of electrolyte. The setup for measuring viscosity is shown in Fig. 1. Crucible furnace 9 is heated to the necessary temper-

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UDC: 621.785.53:621.317.729

I. 9634-66  
ACC NR: AP5027712

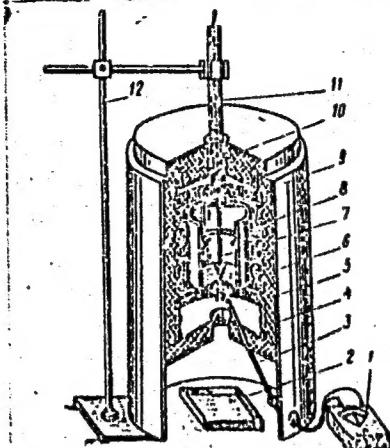


Fig. 1. Diagram of setup for determining the outflow time of electrolyte

1 - pyrometer; 2 - receiver for outflowing electrolyte; 3 - thermocouple;  
4 - lining; 5 - spiral heater; 6 - graduated capillary; 7 - locking valve;  
8 - metal container; 9 - furnace casing; 10- furnace lid; 11 - container holder;  
12 - mount

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L 96311-66  
ACC NR: AP5027712

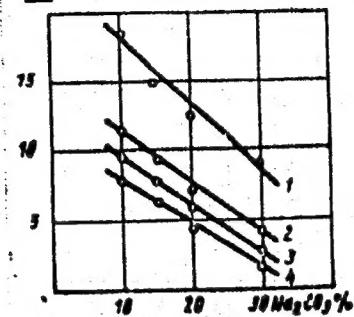


Fig. 2. Outflow time of electrolyte (in min) as a function of Na<sub>2</sub>CO<sub>3</sub> content:

1 - 800°C; 2 - 850°C; 3 - 900°C; 4 - 960°C

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